

Amendments to the Claims

Please amend claims 1, 5-12, and 14-15. Please cancel claims 16-19. Please add new claims 20-27. The currently pending claims after amendment are listed below.

1. (Currently Amended) A digital camera, comprising:
- a housing;
 - a digital optical sensing apparatus mounted within said housing, said digital optical sensing apparatus sensing optical images;
 - a storage medium for storing digital optical images captured by said digital optical sensing apparatus;
 - an acoustic sensor capable of sensing human speech;
 - a speech reduction apparatus coupled to said acoustic sensor, said speech reduction apparatus converting human speech sensed by said acoustic sensor to a symbolic text form; and
 - a controller which stores said symbolic text form in said storage medium in a relationship associated with a captured digital image, wherein said controller:
 - (a) receives a user indication of a plurality of discrete time intervals;
 - (b) records a plurality of discrete human speech segments sensed by said acoustic sensor in respective said discrete time intervals;
 - (c) causes said speech reduction apparatus to convert each said human speech segment to a corresponding symbolic text segment; and
 - (d) automatically associates a respective digital optical image captured by said digital optical sensing apparatus with each said symbolic text segment based on a temporal relationship between the time interval in which the discrete human speech segment corresponding to the symbolic text segment was recorded and the capturing of said digital optical image.

1 2. (Original) The digital camera of claim 1, wherein said controller comprises a
2 programmable processor executing a control program for controlling the operation of said digital
3 camera.

1 3. (Original) The digital camera of claim 2, wherein said speech reduction apparatus
2 comprises a speech reduction algorithm embodied as a plurality of instructions executable on said
3 programmable processor.

1 4. (Original) The digital camera of claim 1, wherein said speech reduction apparatus
2 converts said human speech sensed by said acoustic sensor to an intermediate symbolic form
3 comprising a symbolic representation of phonemes, said intermediate symbolic form being
4 subsequently reduced to natural language text by a separate apparatus.

1 5. (Currently Amended) A method of operating a digital camera, comprising the steps of:
2 capturing a plurality of digital image images of an object respective objects of interest with
3 optical sensing apparatus of said digital camera;
4 recording a plurality of discrete segments of human speech of a user in said digital camera
5 during a plurality of respective discrete time intervals, ~~said recording step being performed each~~
6 respective discrete time interval occurring substantially contemporaneously with ~~said step of~~
7 capturing a of each respective digital image of said plurality of digital images;
8 rendering each said segment of said plurality of discrete segments of human speech in a
9 respective corresponding segment of symbolic text ~~form~~ using speech reduction apparatus within
10 said digital camera; and
11 automatically associating each respective digital image of said plurality of digital images
12 with a respective corresponding segment of symbolic text rendered from a respective
13 corresponding segment of human speech based on a temporal relationship between the respective
14 discrete time interval during which the corresponding segment of human speed was recorded and
15 the capturing of the respective digital image, and storing each said symbolic text ~~form~~ segment in
16 a relationship associated with each respective said captured digital image.

1 6. (Currently Amended) The method of operating a digital camera of claim 5, wherein said
2 step of rendering each said segment of said plurality of discrete segments of human speech in a
3 respective corresponding segment of symbolic text ~~form~~ converts said human speech to an
4 intermediate symbolic form comprising a symbolic representation of phonemes, said intermediate
5 symbolic form being subsequently reduced to natural language text by an apparatus separate from
6 said digital camera.

1 7. (Currently Amended) The method of operating a digital camera of claim 5, wherein said
2 step of rendering each said segment of said plurality of discrete segments of human speech in a
3 respective corresponding segment of symbolic text ~~form~~ is performed by a programmable
4 processor executing a speech reduction program.

1 8. (Currently Amended) The method of operating a digital camera of claim 7, wherein said
2 programmable processor further executes a control program for controlling the operation of said
3 digital camera, and said step of rendering each said segment of said plurality of discrete segments
4 of human speech in a respective corresponding segment of symbolic text ~~form~~ is performed by
5 said programmable processor in the background when said control program is otherwise
6 unoccupied.

1 9. (Currently Amended) A program product for controlling the operation of a digital camera,
2 said program product comprising a plurality of processor executable instructions recorded on
3 signal-bearing media, wherein said instructions, when executed by at least one programmable
4 processor within said digital camera, cause the camera to perform the steps of:

5 capturing a plurality of digital image images of an object respective objects of interest with
6 optical sensing apparatus of said digital camera;

7 recording a plurality of discrete segments of human speech of a user in said digital camera
8 during a plurality of respective discrete time intervals, said recording step being performed each
9 respective discrete time interval occurring substantially contemporaneously with ~~said step of~~
10 capturing a of each respective digital image of said plurality of digital images;

11 rendering each said segment of said plurality of discrete segments of human speech in a
12 respective corresponding segment of symbolic text ~~form~~ using speech reduction apparatus within
13 said digital camera; and

14 associating each respective digital image of said plurality of digital images with a
15 respective corresponding segment of symbolic text rendered from a respective corresponding
16 segment of human speech based on a temporal relationship between the respective discrete time
17 interval during which the corresponding segment of human speech was recorded and the capturing
18 of the respective digital image, and storing each said symbolic text ~~form~~ segment in a relationship
19 associated with each respective said captured digital image.

1 10. (Currently Amended) The program product for controlling the operation of a digital
2 camera of claim 9, wherein said step of rendering each said segment of said plurality of discrete
3 segments of human speech in a respective corresponding segment of symbolic text ~~form~~ converts
4 said human speech to an intermediate symbolic form comprising a symbolic representation of
5 phonemes, said intermediate symbolic form being subsequently reduced to natural language text
6 by an apparatus separate from said digital camera.

11. (Currently Amended) A method of recording information with digital images, comprising the steps of:

capturing ~~at least one~~ a plurality of digital ~~image~~ images of a respective ~~object~~ objects of interest with optical sensing apparatus of a digital camera;

recording ~~at least one segment~~ a plurality of discrete segments of human speech of a user in said digital camera, ~~each segment corresponding to a respective digital image, said recording step being performed~~ during a plurality of respective discrete time intervals occurring substantially contemporaneously with ~~said step of capturing the~~ of each respective digital image of said plurality of digital images;

rendering each said ~~at least one~~ segment of said plurality of discrete segments of human speech into ~~at least one~~ a respective corresponding segment of symbolic text ~~form~~ using speech reduction apparatus within said digital camera;

automatically associating each respective digital image of said plurality of digital images with a respective corresponding segment of symbolic text rendered from a respective corresponding segment of human speech based on a temporal relationship between the respective discrete time interval during which the corresponding segment of human speech was recorded and the capturing of the respective digital image, and recording said association in a memory of said digital camera;

uploading said at least one digital image and said at least one segment of symbolic text to a digital image formatting apparatus; and

formatting said ~~at least one~~ plurality of digital ~~image~~ images and said ~~at least one~~ plurality of segment segments of symbolic text for viewing by a user using said digital image formatting apparatus, wherein each said segment of symbolic text is formatted for viewing in a human readable form associated with its corresponding digital image.

12. (Currently Amended) The method of recording information with digital images of claim 11, wherein said step of rendering each said ~~at least one~~ segment of said plurality of discrete segments of human speech in a respective corresponding segment of symbolic text ~~form~~ converts said human speech to an intermediate symbolic form comprising a symbolic representation of phonemes, and wherein said step of formatting said ~~at least one~~ plurality of digital ~~image~~ images and said ~~at least one segment~~ plurality of segments of symbolic text for viewing comprises reducing said intermediate symbolic form to natural language text.

13. (Original) The method of recording information with digital images of claim 11, wherein said digital image formatting apparatus is a general-purpose digital computer executing a digital image formatting program.

14. (Currently Amended) The method of recording information with digital images of claim 11, wherein said step of formatting said ~~at least one~~ plurality of digital ~~image~~ images and said ~~at least one segment~~ plurality of segments of symbolic text comprises formatting for output on paper, wherein formatted text is printed on paper with a corresponding digital image.

15. (Currently Amended) The method of recording information with digital images of claim 11, wherein said step of formatting said ~~at least one~~ plurality of digital ~~image~~ images and said ~~at least one segment~~ plurality of segments of symbolic text comprises formatting for viewing from an output screen of a digital device, wherein formatted text is displayed on said output screen with a corresponding digital image.

16-19. (Cancelled)

1 20. (New) The digital camera of claim 1, wherein said controller associates a respective
2 digital image with each symbolic text segment according to at least one of the following
3 association priorities:

4 (1) if a first digital image is captured during the recording of a human speech segment
5 corresponding to the symbolic text segment, the symbolic text segment is associated with the first
6 digital image;

7 (2) if no digital image is captured from a time the digital camera is powered on until the
8 end of the recording of the human speech segment corresponding to the symbolic text segment,
9 and a second digital image is captured after recording the human speech segment but before the
10 digital camera is powered off, then the symbolic text segment is associated with the second digital
11 image; and

12 (3) in all other cases, the symbolic text is associated with the digital image most recently
13 captured before the recording of the human speech segment corresponding to the symbolic text
14 segment.

1 21. (New) The digital camera of claim 20, wherein said controller associates a respective
2 digital image with each symbolic text segment according to all of said association priorities.

1 22. (New) The method of claim 5, wherein said step of automatically associating each
2 respective digital image of said plurality of digital images with a respective corresponding
3 segment of symbolic text comprises automatically associating according to at least one of the
4 following association priorities:

5 (1) if a first digital image is captured during the recording of a human speech segment
6 corresponding to the symbolic text segment, the symbolic text segment is associated with the first
7 digital image;

8 (2) if no digital image is captured from a time the digital camera is powered on until the
9 end of the recording of the human speech segment corresponding to the symbolic text segment,
10 and a second digital image is captured after recording the human speech segment but before the
11 digital camera is powered off, then the symbolic text segment is associated with the second digital
12 image; and

13 (3) in all other cases, the symbolic text is associated with the digital image most recently
14 captured before the recording of the human speech segment corresponding to the symbolic text
15 segment.

1 23. (New) The method of claim 22, wherein said step of automatically associating each
2 respective digital image of said plurality of digital images with a respective corresponding
3 segment of symbolic text comprises automatically associating according to all of said association
4 priorities.

1 24. (New) The program product of claim 9, wherein said step of associating each respective
2 digital image of said plurality of digital images with a respective corresponding segment of
3 symbolic text comprises associating according to at least one of the following priorities:

4 (1) if a first digital image is captured during the recording of a human speech segment
5 corresponding to the symbolic text segment, the symbolic text segment is associated with the first
6 digital image;

7 (2) if no digital image is captured from a time the digital camera is powered on until the
8 end of the recording of the human speech segment corresponding to the symbolic text segment,
9 and a second digital image is captured after recording the human speech segment but before the
10 digital camera is powered off, then the symbolic text segment is associated with the second digital
11 image; and

12 (3) in all other cases, the symbolic text is associated with the digital image most recently
13 captured before the recording of the human speech segment corresponding to the symbolic text
14 segment.

1 25. (New) The program product of claim 24, wherein said step of associating each respective
2 digital image of said plurality of digital images with a respective corresponding segment of
3 symbolic text comprises associating according to all of said association priorities.

1 26. (New) The method of claim 11, wherein said step of automatically associating each
2 respective digital image of said plurality of digital images with a respective corresponding
3 segment of symbolic text comprises automatically associating according to at least one of the
4 following priorities:

5 (1) if a first digital image is captured during the recording of a human speech segment
6 corresponding to the symbolic text segment, the symbolic text segment is associated with the first
7 digital image;

8 (2) if no digital image is captured from a time the digital camera is powered on until the
9 end of the recording of the human speech segment corresponding to the symbolic text segment,
10 and a second digital image is captured after recording the human speech segment but before the
11 digital camera is powered off, then the symbolic text segment is associated with the second digital
12 image; and

13 (3) in all other cases, the symbolic text is associated with the digital image most recently
14 captured before the recording of the human speech segment corresponding to the symbolic text
15 segment.

1 27. (New) The method of claim 26, wherein said step of automatically associating each
2 respective digital image of said plurality of digital images with a respective corresponding
3 segment of symbolic text comprises automatically associating according to all of said association
4 priorities.